

Abstract

Integrated NO_x and Particulate Filter

Oxides of nitrogen are adsorbed onto the surfaces of, and particulates are trapped in, pores of channels (130, 133, 139-151) in a porous, interdigitated ceramic particulate filter (57, 100) that has
5 relative rotation with respect to a gas inlet distributor (76, 101). The distributor has a baffle (85) or ribs (121, 122) that causes constantly flowing engine exhaust (53) to enter the filter channels over a large portion of a revolution of the adsorption bed or the distributor, and causes constantly flowing syngas (54) to thereafter pass through
10 those passages during a small portion of each revolution. Either the inlet gas distributor (101) or the filter bed (57) may be rotated to distribute the gases. Dual, alternately regenerated filters (35, 36) may be used.